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EXAMINER	
DONADO, FRANK E	
ART UNIT	PAPER NUMBER
2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/567,607	PETROVIC ET AL.	
	Examiner	Art Unit	
	FRANK DONADO	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 October 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36 and 39-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-36 and 39-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed on 10/7/09 has been entered. Claims 1, 3, 4, 6, 19, 42, and 43 have been amended. Claims 37 and 38 have been cancelled. No claims have been added. Claims 1-36 and 39-43 are currently pending in this application, with claims 1 and 19 being independent.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-7, 11, 12, 14-17, 19, 20, 23, 24, 27-29, 32, 34-36, and 39-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Savolainen, et al **(US Patent No. 6,438,377)**, in view of Mohebbi **(US Patent No. 6,768,907)**. From now on, Savolainen, et al, will be referred to as Savolainen.

Regarding claim 1, Savolainen teaches a method for controlling a plurality of base stations in a mobile communication system comprising a communication terminal, said plurality of base stations and a control unit connected to said plurality of base stations, the communication terminal being in communication with said plurality of base stations during a soft handover, the method comprising: receiving a data packet from said communication terminal at said plurality of base stations, evaluating, for each base station of said plurality of base stations, an uplink channel quality characteristic between said communication terminal and the respective base station and determining the base station of said plurality of base stations having the best uplink channel quality characteristic as a serving base station **(A base station controller (BSC) commands base stations to measure uplink signal quality, and, after receiving said measurements, selects the base station with the best uplink quality as the serving base station, Abstract, lines 4-13)**. Savolainen does not teach controlling

some or all base stations having received the data packet from the communication terminal during soft handover and other than the serving base station not to forward the received data packet to said control unit during the soft handover. Mohebbi teaches controlling some or all base stations having received the data packet from the communication terminal during soft handover and other than the serving base station not to forward the received data packet to said control unit during the soft handover (**A subset of a plurality of base transceiver stations (BTS's) is selected for possible forwarding of a packet to a Base Station Controller (BSC) during a handover, where BTS's determine from said selection whether or not said packet is to be forwarded to said BSC, Abstract, lines 6-17**). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Savolainen to include this feature for the benefit of transmission efficiency and reducing costs.

Regarding claim 2, Savolainen, in view of Mohebbi, teaches the method according to claim 1. Mohebbi further teaches checking data integrity of said received data packet at each of said plurality of base stations, and transmitting said received data packet and/or a control packet from the respective base station to said control unit if data integrity of said received data packet was confirmed by a base station controlled to forward said received data packet to said control unit, wherein the control packet acknowledges the correct reception of said data packet (**Said BTS detects whether a mobile station is moving too fast to receive an uplink signal at an appropriate power level, where if said mobile station is a "slow moving mobile" (SMM), said**

uplink signal is being received at an appropriate power level, and a SMM message is transmitted from said BTS to a network 5 that includes said BSC, Column 6, lines 16-18 and 36-50, Column 7, lines 13-15 and Column 1, lines 16-18).

Regarding claim 3, Savolainen, in view of Mohebbi, teaches the method according to claim 2. Mohebbi further teaches transmitting a notification from the respective base station to said control unit if data integrity of said received data packet was not acknowledged by a base station, wherein the notification indicates that data integrity of said received data packet was not acknowledged by said respective base station **(If said detection indicates mobile station is a "fast moving mobile" (FMM), said uplink signal is not being received at an appropriate power level, and a FMM message is transmitted from said BTS to said network 5 that includes said BSC, Column 6, lines 16-18 and 36-50, Column 7, lines 9-13 and Column 1, lines 16-18).**

Regarding claim 4, Savolainen, in view of Mohebbi, teaches the method according to claim 1. Mohebbi further teaches checking data integrity, of said received data packet at the serving base station, transmitting from the serving base station either the received data packet to the control unit if the data integrity of said received data packet was acknowledged by said serving station, or a notification indicating that the data integrity of said received data packet was not acknowledged by said serving base station from said serving base station to said control unit, if the data integrity of said

received data packet was not acknowledged by said serving base station **(Said BTS detects whether a mobile station is moving too fast to receive an uplink signal at an appropriate power level, where if said mobile station is a "slow moving mobile" (SMM), said uplink signal is being received at an appropriate power level, and a SMM message is transmitted from said BTS to a network 5 that includes said BSC, Column 6, lines 16-18 and 36-50, Column 7, lines 13-15 and Column 1, lines 16-18)**.

Regarding claim 5, Savolainen, in view of Mohebbi teaches the method according to claim 4. Savolainen further teaches transmitting by said control unit in response to receiving said notification from said serving base station a status request relating to said received data packet from the other base stations than that selected base station, and receiving status reports relating to said received data packet from said other base stations, wherein said status report indicates whether data integrity of said data packet was confirmed at the respective base station or comprises said received data packet **(When said BSC receives a notification that said received uplink at a serving base station does not meet a predetermined criteria, said BSC commands other of said base stations to measure uplink signal quality, and, after receiving said measurements, identifies whether said uplink signals are being received at said other base stations, Abstract, lines 4-13)**.

Regarding claim 6, Savolainen, in view of Mohebbi teaches the method according to claim 3 or 5. Mohebbi further teaches said notification and said status report are transmitted to the control unit in at least one frame protocol control frame or by radio network signaling messages over a wired interface **(Said FMM message is used to control frames transmitted through selection of only 1 BTS for said frame transmission for each timeslot to reduce overhead received at said network, Column 8, lines 58-64)**.

Regarding claim 7, Savolainen, in view of Mohebbi, teaches the method according to claim 1. Savolainen further teaches selecting the serving base station is executed by said control unit **(Said selection by said base station controller includes selecting the base station with the best uplink quality as the serving base station, Abstract, lines 8-13)**.

Regarding claims 11 and 12, Savolainen, in view of Mohebbi, teaches the method according to claim 1. Mohebbi further teaches evaluating an uplink channel quality characteristic comprises averaging parameters indicating the uplink channel quality over a configurable time interval, and said time interval is configured by at least one signaling message of a radio resource control protocol or at least one system specific control plane protocol message **(A power error averaging takes into account power variations in each time slot due to movement of a mobile station, where**

said movement of mobile station determines a time interval used for operations that include said power averaging, Column 6, lines 44-48, Column 7, lines 9-15 and Column 9, lines 10-14).

Regarding claim 14, Savolainen, in view of Mohebbi, teaches the method according to claim 1. Savolainen further teaches said control unit transmits a selection command to the new serving base station upon selection **(Said BSC transmits a handover command to a selected/target BTS2, Column 2, lines 31-43)**.

Regarding claim 15, Savolainen, in view of Mohebbi, teaches the method according to claim 14. Savolainen further teaches said control unit further transmits the selection command to the previous serving base station **(Said BSC notifies previous serving BTS1 of handover/selection of said BTS2, where said BTS1 remains silent during said handover, Column 4, lines 38-43)**.

Regarding claim 16, Savolainen, in view of Mohebbi, teaches the method according to claim 14. Savolainen further teaches the selection command indicates an activation time at which the new serving base station should start forwarding the successful received data packets, control packets or notifications to said control unit and at which the previous serving base station should stop forwarding the successfully

received data packet, control packets or notifications to said control unit **(Said command to target BTS2 and notification to previous BTS1 include an interleaving of BTS1 and BTS2 transmissions controlled by said BSC, where said interleaving includes the commencement of communication between BTS2 and a mobile station MS during a timeslot normally reserved for said BTS1 and the ending of communication between BTS1 and said MS, Column 4, lines 33-47)**.

Regarding claim 17, the method according to claim 16, wherein the previous serving base station and said control unit negotiate said activation time by exchanging control messages **(Said interleaving includes exchanging of communication between said BSC and previous BTS1 to negotiate said ending of communication of BTS1 that occurs during same interval as said activation of communication of BTS2, Column 4, lines 33-47)**.

Regarding claim 19, Savolainen teaches a method for controlling a plurality of base stations in a mobile communication system comprising a communication terminal, said plurality of base stations and a gateway interconnecting said mobile communication network to a fixed communication network, the communication terminal being in communication with said plurality of base stations during a soft handover, the method comprising: receiving a data packet from said communication terminal at said plurality of base stations, for each base station of said plurality of base stations,

evaluating an uplink channel quality characteristic between said communication terminal and the respective base station, determining the base station of said plurality of base stations having the best uplink channel quality characteristic and selecting the determined base station as a serving base station **(A base station controller (BSC) commands base stations to measure uplink signal quality, and, after receiving said measurements, selects the base station with the best uplink quality as the serving base station, Abstract, lines 4-13)**; Savolainen does not teach controlling some or all base stations having received the packet from the communication terminal during soft handover and other than the serving base station not to forward the received data packet to said gateway unit during the soft handover. Mohebbi teaches controlling some or all base stations having received the packet from the communication terminal during soft handover and other than the serving base station not to forward the received data packet to said gateway unit during the soft handover **(A subset of a plurality of base transceiver stations (BTS's) is selected for possible forwarding of a packet to a Base Station Controller (BSC) during a handover, where BTS's determine from said selection whether or not said packet is to be forwarded to said BSC, Abstract, lines 6-17)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Savolainen to include this feature for the benefit of transmission efficiency and reducing costs.

Regarding claim 20, Savolainen, in view of Mohebbi, teaches the method according to claim 19. Mohebbi further teaches checking data integrity of said received

data packet at each of said plurality of base stations, and if data integrity of said received data packet was confirmed by a base station controlled to forward said received data packet to said gateway, transmitting said received data packet from the respective base station to said gateway **(Said BTS determines whether to forward said uplink information, and, based on said determination, forwards said uplink information to said BSC, Steps C6 and C7 of Figure 10 and Column 8, lines 43-48)**.

Regarding claim 23, Savolainen, in view of Mohebbi, teaches the method according to claim 19. Savolainen further teaches selecting the serving base station is executed by the current serving base station **(A serving base station among said base stations measures one of said uplink measurements and said uplink measured by serving base station triggers handoff, Abstract, lines 4-8)**.

Regarding claim 24, Savolainen, in view of Mohebbi, teaches the method according to claim 1 or 19. Mohebbi further teaches said uplink channel quality characteristic is determined based on at least one of a path loss for an uplink channel between said communication terminal and the respective base station, closed loop power control commands transmitted by a base station to said communication terminal and uplink interference **(Said BTS's determine an error value for said received uplink signals to verify said uplink is being received at an appropriate power level, where, a control message is transmitted by said BTS's to said network**

elements that comprise BSC, and said control message is said fast mobile message (FMM) that assists in controlling said BTS selection, Step A8 of Figure 7, Column 6, lines 52-62 and Column 7, lines 9-13).

Regarding claims 27 and 28, Savolainen, in view of Mohebbi teaches the method according to claim 19. Mohebbi further teaches evaluating an uplink channel quality characteristic comprises averaging parameters indicating the uplink channel quality over a configurable time interval, and said time interval is configured by radio resource control signaling or another system specific control plane protocol **(A power error averaging takes into account power variations in each time slot due to movement of a mobile station, where said movement of mobile station determines a time interval used for operations that include said power averaging, Column 6, lines 44-48, Column 7, lines 9-15 and Column 9, lines 10-14)**.

Regarding claim 29, Savolainen, in view of Mohebbi teaches the method according to claim 27. Mohebbi further teaches said time interval is selected taking into account the velocity in a movement of said communication terminal, and the signaling delay between at least two base stations of said plurality of base stations **(Said time interval is consistent with said speed of mobile station, Column 9, lines 10-14)**.

Regarding claim 32, Savolainen, in view of Mohebbi, teaches the method according to claim 15. Savolainen further teaches the previous or current serving base station and the new serving base station continue their serving base station functionality in parallel for a predetermined time period **(During a predetermined handoff period while a mobile terminal is in movement, surrounding base stations that include serving and candidate base stations continue to serve said mobile terminal depending on the current position of said mobile terminal according to said movement while said handover decision is made, Column 2, lines 19-22)**.

Regarding claim 34, Savolainen, in view of Mohebbi teaches the method according to claim 1. Mohebbi further teaches the received data packet is transmitted in at least one frame protocol data frame and the control packet and/or the notification is transmitted in at least one frame protocol control frame **(Said BTS detects whether a mobile station is moving too fast to receive an uplink signal at an appropriate power level, where if said detection indicates mobile station is a "fast moving mobile" (FMM), said uplink signal is not being received at an appropriate power level, a FMM message is transmitted from said BTS to said network 5 that includes said BSC, and said FMM message is used to control frames transmitted through selection of only 1 BTS for said frame transmission for each timeslot to reduce overhead received at said network** Column 6, lines 16-18 and 36-50, Column 7, lines 9-13 and Column 1, lines 16-18**A Fast Mob, Column 8, lines 58-64)**.

Regarding claim 35, Savolainen, in view of Mohebbi teaches the method of claim 1. Savolainen further teaches the method implemented by a base station for use in a mobile communication system wherein a communication terminal is in communication with a plurality of base stations during a soft handover **(A mobile communication system comprising these features is described in Abstract, lines 4-13).**

Regarding claim 36, Savolainen, in view of Mohebbi teaches the method of claim 1. Savolainen further teaches the method implemented by a control unit for use in a mobile communication system comprising a communication terminal, a plurality of base stations and said control unit connected to said plurality of base stations, the communication terminal being in communication with said plurality of base stations during a soft handover **(A mobile communication system comprising these features is described in Abstract, lines 4-13).**

Regarding claim 39, Savolainen, in view of Mohebbi, teaches the method according to claim 1. Mohebbi further teaches receiving power control commands from said plurality of base stations, for each base station of said plurality of base stations, the communication terminal determining a channel quality characteristic related to each base station based on the power control commands received from the respective base station, and transmitting said determined channel quality characteristics to said control unit via a base station, wherein said determined channel quality characteristics are

considered by said control unit or said serving base station to select a serving base station **(Said BTS's determine an error value for said received uplink signals to verify said uplink is being received at an appropriate power level, where, a control message is transmitted by said BTS's to said network elements that comprise BSC, and said control message is said fast mobile message (FMM) that assists in controlling said BTS selection, Step A8 of Figure 7, Column 6, lines 52-62 and Column 7, lines 9-13)**.

Regarding claim 40, Savolainen, in view of Mohebbi, teaches the method according to claim 39. Mohebbi further teaches determining said channel quality characteristic for each base station comprises combining said power commands received from the respective base station over a configurable time period **(An average error value for said received uplink signals comprising power level information is calculated over a time interval according to a speed of a mobile station, where said time interval may vary to be consistent with said speed of mobile station, Figure 7, Column 6, lines 51-67 and Column 7, lines 1-15 and Column 9, lines 10-14)**.

Regarding claim 41, Savolainen, in view of Mohebbi, teaches the method of claim 39. Savolainen further teaches the method is implemented by a communication terminal for use in a mobile communication system comprising the communication

terminal, a plurality of base stations and a control unit connected to said plurality of base stations, the communication terminal being in communication with said plurality of base stations during a soft handover **(A mobile communication system comprising these features is described in Abstract, lines 4-13)**.

Regarding claim 42, Savolainen, in view of Mohebbi, teaches a mobile communication system comprising a communication terminal according to claim 41. Savolainen further teaches a plurality of base stations and at least one control unit connected to said plurality of base stations, the communication terminal being in communication with said plurality of base stations during a soft handover, said plurality of base stations comprising at least one base station which comprises a section that implements a method comprising: receiving a data packet from said communication terminal at said plurality of base stations; for each base station of said plurality of base stations, evaluating an uplink channel quality characteristic between said communication terminal and the respective base station, determining the base station of said plurality of base stations having the best uplink channel quality characteristic and selecting the determined base station as the serving base station **(A mobile communication system comprising these features is described in Abstract, lines 4-13)**. Mohebbi further teaches controlling some or all base stations having received the data packet during the soft handover and other than the serving base station not to forward the received data packet to said control unit during the soft handover **(A subset of a plurality of base transceiver stations (BTS's) is selected for possible**

forwarding of a packet to a Base Station Controller (BSC) during a handover, where BTS's determine from said selection whether or not said packet is to be forwarded to said BSC, Abstract, lines 6-17).

Regarding claim 43, Savolainen teaches a mobile communication system comprising a communication terminal according to claim 41 and a plurality of base stations, the communication terminal being in communication with said plurality of base stations during a soft handover, said plurality of base stations comprising at least one base station which comprises a section that implements a method comprising: receiving a data packet from said communication terminal at said plurality of base stations; for each base station of said plurality of base stations, evaluating an uplink channel quality characteristic between said communication terminal and the respective base station, determining the base station of said plurality of base stations having the best uplink channel quality characteristic and selecting the determined base station as the serving base station **(A base station controller (BSC) commands base stations to measure uplink signal quality, and, after receiving said measurements, selects the base station with the best uplink quality as the serving base station, Abstract, lines 4-13)**. Savolainen does not teach controlling some or all base stations having received the data packet during the soft handover and other than the serving base station not to forward the received data packet to said control unit during the soft handover. Mohebbi teaches controlling some or all base stations having received the data packet during the soft handover and other than the serving base station not to forward the received data

packet to said control unit during the soft handover **(A subset of a plurality of base transceiver stations (BTS's) is selected for possible forwarding of a packet to a Base Station Controller (BSC) during a handover, where BTS's determine from said selection whether or not said packet is to be forwarded to said BSC, Abstract, lines 6-17)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Savolainen to include this feature for the benefit of transmission efficiency and reducing costs.

6. Claims 8, 9, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Savolainen, in view of Mohebbi, and further in view of Bonta **(US Patent No. 6,091,962)**.

Regarding claims 8 and 9, Savolainen, in view of Mohebbi, teaches the method according to claim 1. Savolainen, in view of Mohebbi, does not teach said selection of the serving base station is periodically triggered by a configurable timer. Bonta teaches said selection of the serving base station is periodically triggered by a configurable timer **(A serving base station starts a timer comprising an interval, where a loss of synchronization during said interval triggers a handoff executed between said serving and a target base station, Column 3, lines 57-65, Column 4, lines 51-60 and 64-67 and Column 5, lines 1-3 and 48-52)**, and said timer value is signaled to said serving base station within a radio link addition function or a combined radio link addition and removal function **(Said timer assists in establishing link with another**

radio communications channel, Column 3, lines 38-44 and 57-65). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Savolainen, in view of Mohebbi, to include this feature for the benefit of transmission efficiency.

Regarding claim 25, Savolainen, in view of Mohebbi, teaches the method according to claim 1 or 19. Savolainen, in view of Mohebbi, does not teach said selection of the serving base station is independent from uplink data channel air interface transmission. Bonta teaches selection of the serving base station is independent from uplink data channel air interface transmission **(A serving base station receives downlink information which is used to make a handoff selection, indicating selection of the serving base station is independent from uplink data channel air interface transmission, Column 4, lines 64-67, Column 5, lines 1-3 and 48-52)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Savolainen, in view of Mohebbi, to include this feature for the benefit of good customer service.

Regarding claim 26, Savolainen, in view of Mohebbi, teaches the method according to claim 19. Savolainen, in view of Mohebbi, does not teach said selection of the serving base station is periodically triggered by a configurable timer. Bonta teaches said selection of the serving base station is periodically triggered by a configurable timer **(A serving base station starts a timer comprising an interval, where a loss of**

synchronization during said interval triggers a handoff executed between said serving and a target base station, Column 3, lines 57-65, Column 4, lines 51-60 and 64-67 and Column 5, lines 1-3 and 48-52). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Savolainen, in view of Mohebbi, to include this feature for the benefit of transmission efficiency.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Savolainen, in view of Mohebbi, and further in view of Bonta, and further in view of Lee, et al **(US PG Publication 2004/0009767)**. From now on, Lee, et al, will be referred to as Lee.

Regarding claim 10, Savolainen, in view of Mohebbi, and further in view of Bonta, teaches the method according to claim 8. Savolainen, in view of Mohebbi, and further in view of Bonta, does not teach said timer value is signaled to said serving base station in an information element of a Node B Application Part (NBAP) or Radio Network Subsystem Application Part (RNSAP) radio link setup request message. Lee teaches said timer value is signaled to said serving base station in an information element of a Node B Application Part (NBAP) or Radio Network Subsystem Application Part (RNSAP) radio link setup request message (Parameter updating due to a handover is triggered by a NBAP message received by a Node B from a RNC, where said message includes an activation time for said parameter, and said updating is also triggered by the end of an update period, Paragraphs 140-141 and 145-148). It would have been

obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Savolainen, in view of Mohebbi, and further in view of Bonta, to include this feature for the benefit of transmission efficiency.

8. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Savolainen, in view of Mohebbi, and further in view of Ahmavaara **(US Patent No. 6,807,421)**.

Regarding claim 13, Savolainen, in view of Mohebbi, teaches the method according to claim 11. Mohebbi further teaches said time interval is selected taking into account the velocity in a movement of said communication terminal **(A power error averaging takes into account power variations in each time slot due to movement of a mobile station, where said movement of mobile station determines a time interval used for operations that include said power averaging, Column 6, lines 44-48, Column 7, lines 9-15 and Column 9, lines 10-14)**, the signaling delay between said control unit and a base station **(A timing criteria TIM is used by said BTS to decide whether to perform said forwarding, Column 8, lines 37-44)**. Savolainen, in view of Mohebbi, does not teach the signaling delay between different control units in the mobile communication system. Ahmavaara teaches said time interval is selected taking into account the signaling delay between said control unit and a base station **(A delay resulting from a mobile station moving from a first to a second radio network controller is reduced, Column 2, lines 8-18)**.

9. Claims 18 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Savolainen, in view of Mohebbi, and further in view of Lee.

Regarding claim 18, Savolainen, in view of Mohebbi teaches the method according to claim 17. Savolainen, in view of Mohebbi, does not teach said control message is one of a radio link reconfiguration message, an activation time negotiation request message, and an activation time confirmation message of Node B Application Part (NBAP) or Radio Network Subsystem Application Part (RNSAP) protocols. Lee teaches said control message is one of a radio link reconfiguration message, an activation time negotiation request message, and an activation time confirmation message of Node B Application Part (NBAP) or Radio Network Subsystem Application Part (RNSAP) protocols **(Parameter updating due to a handover is triggered by a NBAP message received by a Node B from a RNC, where said message includes an activation time for said parameter, and said updating is also triggered by the end of an update period, Paragraphs 140-141 and 145-148).** It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Savolainen, in view of Mohebbi, to include this feature for the benefit of transmission efficiency.

Regarding claim 33, Savolainen, in view of Mohebbi, teaches the method according to claim 14. Savolainen, in view of Mohebbi does not teach the selection

command is transmitted in an information element of NBAP or RNSAP message. Lee teaches the selection command is transmitted in an information element of NBAP or RNSAP message **(Parameter updating due to a handover is triggered by a NBAP message received by a Node B from a RNC, where said message includes an activation time for said parameter, and said updating is also triggered by the end of an update period, Paragraphs 140-141 and 145-148)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Savolainen, in view of Mohebbi, to include this feature for the benefit of transmission efficiency.

10. Claims 21, 22, and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Savolainen, in view of Mohebbi, and further in view of Tiedemann, Jr., et al **(US Provisional Application Number 60/479,252)**. From now on, Tiedemann, Jr., et al, will be referred to as Tiedemann.

Regarding claim 21, Savolainen, in view of Mohebbi, teaches the method according to claim 19. Savolainen, in view of Mohebbi, does not teach if data integrity of said received data packet was not acknowledged by said serving base station, transmitting from said serving base station a status request relating to said received data packet to the other base stations than said serving base station, and receiving status reports relating to said received data packet from said other base stations, wherein said status report indicates whether data integrity of said data packet was

confirmed at the respective base station or comprises said received data packet. Tiedemann teaches if data integrity of said received data packet was not acknowledged by said serving base station, transmitting from said serving base station a status request relating to said received data packet to the other base stations than said serving base station, and receiving status reports relating to said received data packet from said other base stations, wherein said status report indicates whether data integrity of said data packet was confirmed at the respective base station or comprises said received data packet **(During a soft handoff, a serving base station requests and receives information from non-serving base stations to determine a new serving base station from among said non-serving base stations, Pg. 1, paragraph beginning "Several base stations…", lines 1-3, Pg. 7, entire paragraph beginning "Referring to Fig. 3…" and Pg. 9, paragraph beginning "When scheduling…", lines 1-9)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Savolainen, in view of Mohebbi, to include this feature for the benefit of transmission efficiency.

Regarding claim 22, Savolainen, in view of Mohebbi, teaches the method according to claim 19. Tiedemann teaches said notification and said status report are transmitted to said serving base station in at least one frame protocol control frame or by radio network signaling messages over a wired interface **(Said information includes load control data that is used to schedule packet/frame transmissions for said non-serving base stations, Pg. 4, paragraph beginning "At one time...",**

lines 8-16). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Savolainen, in view of Mohebbi, to include this feature for the benefit of transmission efficiency.

Regarding claims 30 and 31, Savolainen, in view of Mohebbi, teaches the method according to claim 19. Savolainen, in view of Mohebbi, does not teach the current serving base station transmits a selection command to the new serving base station upon selection. Tiedemann teaches the current serving base station transmits a selection command to the new serving base station upon selection, wherein the selection command indicates an activation time at which the new serving base station should start forwarding the successfully received data packet to a gateway interconnecting the mobile communication network to a fixed communication network, and at which the previous serving base station should stop forwarding the successfully received data packets to the gateway **(A serving base station selects and transmits load capacity information to a non-serving base station that is expected to become a new serving base station, where said non-serving base station uses said load capacity information to perform uplink transmission scheduling, Pg. 1, paragraph beginning "Several base stations…", lines 1-3, Pg. 7, entire paragraph beginning "Referring to Fig. 3…" and Pg. 9, paragraph beginning "When scheduling…", lines 1-9)**. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Savolainen, in view of Mohebbi, to include this feature for the benefit of cost reduction.

Regarding claim 32, Savolainen, in view of Mohebbi and Tiedemann, teaches the method according to claim 30. Savolainen further teaches the previous or current serving base station and the new serving base station continue their serving base station functionality in parallel for a predetermined time period **(During a predetermined handoff period while a mobile terminal is in movement, surrounding base stations that include serving and candidate base stations continue to serve said mobile terminal depending on the current position of said mobile terminal according to said movement while said handover decision is made, Column 2, lines 19-22)**.

11. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Savolainen, in view of Mohebbi, further in view of Tiedemann, and further in view of Lee.

Regarding claim 33, Savolainen, in view of Mohebbi and Tiedemann, teaches the method according to claim 30. Savolainen, in view of Mohebbi and Tiedemann does not teach the selection command is transmitted in an information element of NBAP or RNSAP message. Lee teaches the selection command is transmitted in an information element of NBAP or RNSAP message **(Parameter updating due to a handover is triggered by a NBAP message received by a Node B from a RNC, where said message includes an activation time for said parameter, and said updating is also**

triggered by the end of an update period, Paragraphs 140-141 and 145-148). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Savolainen, in view of Mohebbi and Tiedemann, to include this feature for the benefit of transmission efficiency.

Response to Arguments

12. Applicant's arguments, filed 10/7/09, with respect to the rejection(s) of claim(s) 1-9, 11-17, 19-32, 34-36, and 39-43 under 35 USC 102 and 10, 18, and 33 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the references cited above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRANK DONADO whose telephone number is (571) 270-5361. The examiner can normally be reached Monday-Friday, 9:30 am-6 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rafael Perez-Gutierrez can be reached on 571-272-7915. The fax phone number for the organization where this application or proceeding is assigned is 571-270-6361.

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